Joining Forces

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IN THIS ISSUE...

This edition of Joining Forces continues the evaluation discussion about the four Army Family Advocacy Program outcomes: safety, self-sufficiency, personnel preparedness, and community cohesion. The article, "Thoughts About Measuring Outcomes," discusses some possible approaches to measurement. It also provides references you can use to explore the record review process. Dr. Gary Bowen addresses an evaluation of community cohesion. Dr. Brooke Brewer provides an annotated listing of outcome evaluation resources, and Dr. Alicia Marshall describes an upcoming Army study to evaluate family advocacy treatment outcomes and interventions. We conclude with a statistics article about confounding.

Thoughts About Measuring Outcomes

In the second "Joining Forces" newsletter, Vol. 1, Issue 2, January 1997, we described the framework of the Army's plan for evaluating the Army outcomes of safety, self-sufficiency, personnel preparedness, and community cohesion (see Table 1). This framework was presented by Dr. Dennis K. Orthner and his colleagues from the University of North Carolina at the annual FAP training conference in San Diego (January 1997) based on Dr. Orthner's model of performance-based management.

AR 608-18 describes the objectives of FAP. It does not describe the means by which the objectives are to be accomplished. Ultimately, you and your clients are the best judges of how well the FAP works. Research can help you and your clients determine if your work is reaching its goals.

Table 1.

Army Outcomes

- **Safety**
  -Reduce violence
- **Self Sufficiency**
  -Strong soldiers & families
- **Personnel Preparedness**
  -Reduce duty time lost, unit readiness
- **Community Cohesion**
  -Strong integrated Army communities supporting soldier and family wellness

FAP's outcomes are the result of influencing personal behavior through prevention and intervention programs. The logic of the performance-based management model is not complex. The hardest part comes in actually carrying out the research to show that interventions based upon the model work.

Many of the large scale studies directed toward health improvements have had a difficult time showing that their interventions lead to the desired or observed outcomes. An example is the recent lowering of heart disease rates in the United States. Although there have been many interventions, none can scientifically show that it is responsible for this reduction. Such a result may be due to what is called a "secular trend." A secular trend is seen when society makes changes that cannot be shown to be related to an intervention–changes occur and no one knows why.

The Army outcomes provide a framework from which to measure the effects of your work. There is no single measure for each one. So, what are these outcomes for? Are they measurable? Yes! We believe that most people would agree on the legitimacy and importance of the FAP outcomes,

Continued on Page 3

CONTENTS:

Fostering Community Cohesion: Presented at the 1998 Family Advocacy Program Worldwide Conference by Gary L. Bowen, Ph.D., ACSW, Kenan Distinguished Professor, The University of North Carolina at Chapel Hill

The Army uses the performance-based management model to study the relationship between community cohesion and the prevention of abuse and neglect. Bowen defined community as "the spatial setting in which soldiers and their families live, including the military installation and the surrounding civilian community." Although the majority of soldiers and their families reside in the civilian community, relatively little attention has been directed toward how formal and informal supports in the civilian community augment those in the Army. Bowen described community capacity as the adequacy and effectiveness of formal and informal systems of care to provide military families with needed resources and opportunities. See Table 2.

Continued at top of page

Table 2.

Functions of Community Capacity Systems
• To develop community identity and pride
• To meet individual and family needs and goals
• To enable meaningful participation in community life
• To secure instrumental and expressive support
• To solve problems and manage conflict
• To affirm and enforce prosocial norms
• To enable individuals and families to cope with threats
• To maintain stability and order in family relationships

Bowen challenged conference attendees to use formal support resources to strengthen informal social supports for soldiers and their families. He also encouraged conference attendees to consider how community capacity may operate differently in response to different situations and demands, such as during a large-scale deployment, at various points in the soldier's military career, and across the life cycle of the family. ■

Joining Forces

MWR Serving America's Army

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Outcome Management Resources

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Listed below are some reference resources for program managers and clinicians. These resources provide guidelines for outcome measurement and also identify specific tools you can use in your programs.

SOURCE 1: Using performance measurement to improve outcomes in behavioral health care Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations. (630) 792-5800. $50.00.

This book provides a comprehensive overview of outcome measurement for both inpatient and outpatient mental health facilities. Identified are three types of performance measurements: structure, process, and outcome. It emphasizes the need for measurement in a variety of areas: health, satisfaction, clinical care, critical non-clinical care, resource management, and financial performance. The appendix provides an overview of a variety of assessment tools, which can be used to assess change in clients who participate in prevention and treatment programs.

SOURCE 2: Magura, S. & Moses, B. S. (1986). Outcome measures for child welfare services: Theories and applications. (1986). Washington, DC: The Child Welfare League of America. (202) 638-2952. $34.95.

This book reviews the need for outcome evaluation and identifies the need for a "multiple indicator approach" to the process. It provides an extensive review of various evaluation tools, citing suggested uses.

SOURCE 3: Maruish, M. E. (ed.). (1994). The use of psychological testing for treatment planning and outcome assessment. Hillsdale, NJ: Larence Erlbaum Association. (201) 236-9500. $135.00.

The introduction reviews the growing focus on outcome measurement. The outcome assessment process and a variety of available instruments are reviewed.

SOURCE 4: Mullen, E. J. & Magnabosco, J. L. (eds.). (1997). Outcomes measurement in the human services: cross-cutting issues and methods. Washington, DC: National Association of Social Workers Press. (800) 227-3590. $36.95.

This book is a review of material presented at the National Symposium on Outcome Measurement in the Human Services held in 1995. The book focuses on three areas in human services which have begun to emphasize outcome measurement: health, mental and behavioral health, and child and family services. One chapter reviews the use of rapid assessment instruments (RAI's) as outcome measurement tools. While this work is from a multi-disciplinary focus, clearly addressed are issues of importance to social work educators and clinicians.

SOURCES 5: Chalk, R. & King, P. (eds.). (1998). Violence in families: assessing prevention and treatment programs. Washington, DC: National Academy Press. 1-800-624-6242. $39.95. It was provided at the 1998 FAP Conference.

This book describes the need to address program effectiveness rather than identifying services that are provided. The text covers a variety of serious issues of concern. Perhaps the most critical of these is that a variety of programs and services are being offered without any proof of their effectiveness. It also discusses different study designs and addresses lessons to be learned from work that is not assessed through an experimental design. A listing of outcome measures used in evaluations of family violence interventions is provided. ■

Measuring Outcomes
(Continued from Page 1)

but how do you measure these outcomes? Are the outcomes to be measured in individuals or communities?

Social science measures are approximations of what you would like to measure. Everybody talks about the importance of good parenting. Suppose you want to measure parenting. What dimensions of parenting would you measure? Supervision? Discipline? Involvement? To evaluate the FAP program you do not have to evaluate all outcomes. We get very excited about very small steps in the research process. When we measure small steps, we want to be sure that what we do is correct and meaningful and stimulates us to think about other issues and outcomes.

The Family Violence and Trauma Project (FVTP) is often asked to provide information on the numbers of cases in the Army Central Registry. This is very simple information that says little or nothing about the clients and their problems. Much more information is available at the installation level. One place to start your evaluation is in your own case files and in case review committee (CRC) records. What are specific studies you could perform locally? How does the behavior of the members of your CRC affect case substantiation rates? Has the threshold for case substantiation changed because of someone's theory of child behavior or marital relations or situational factors? What are the known precipitating causes of an abuse incident? What actually happened that resulted in violence being used against a spouse or child? How many causes of violence are there? Ask questions and see what the clients report.

Once you review a few dozen files on different types of abuse, you will get an idea of what the major factors are. For example, take an incident of spouse abuse in a young couple without children. What would you think are the common circumstances (stressors) that may have contributed to an incident: finances (not enough money, poorly budgeted money, living beyond means), an affair, jealously, poor marital relations or communication patterns, mental illness, or drugs and alcohol?

What process would you use to conduct a systematic and controlled review of your case files to measure the outcomes of community cohesion and safety? See Table 3.

Table 3.

Steps in the Record Review Process
1. Identify the problem to be solved
2. Review the professional literature
3. Establish procedures for the study
4. Report the findings
5. Summarize the study

First, identify the problem you want to solve. What concern or problem do you have that information in the case files will help you to better understand? Is there something about which you have doubt or are perplexed? At your installation, has there been an integrated management of FAP cases involving families, command, interagency collaboration or partnerships to support family wellness and reduce levels of violence? A clear understanding and description of the problem you want to solve establishes the need for the inquiry and helps to identify the purposes and goals of the inquiry.

There should be some practical application or use for the review. Write out a series of questions that you want the inquiry to answer. Discuss these questions with your colleagues who may be able to help you state or refine the questions. Since FAP cases involve both child and spouse abuse, decide if it would be practical to develop questions about one or both types of cases. (The SPAM and CHAM include a wide array of both demographic and psychosocial variables that could form the basis for your questions). Select a manageable number of questions. Otherwise, you may be overwhelmed with data. Asking the right questions will increase your chances of getting the best answers. Identifying the problem and asking the right questions is very time consuming and somewhat difficult; however, it is probably the most important aspect of the review process.

Once you have formulated your questions, the second step is to review the professional literature to see if someone else has already explored your questions. Have others conducted similar studies? What process did they use and how did they organize and analyze their data? What were their findings and recommendations? During the literature review you will learn about a variety of factors that relate to your concern or problem. How do these factors pertain to your questions?

Third, identify the procedures you will use for the study of your records. The procedures will serve as a map to guide your inquiry, establish the parameters of your review, and facilitate the orderly and systematic collection of your data. You should identify a time frame for the cases you will review. For example, you could examine incidents that occurred during the last five years or compare incidents that occurred during year Y with year Z. If you have a large number of cases, you may want to review a representative sample of the cases rather than all the cases. Decide how you will describe the data. Simple statistics, using frequencies and percentages, charts and graphs, and tables will facilitate the analysis and reporting of your data. After outlining the procedures you will use to collect the data, conduct a pilot study of some of the cases to test the practicality of the procedures. If necessary, you can make any needed adjustments.

The fourth step in the process of studying your record is the reporting of your findings (basic facts) and a discussion of your results. Remember those questions or problems you had about community cohesion and safety? Tie in your findings to those questions and compare the findings to information acquired during your search of the relevant literature.

The fifth and final step of your review is a brief summary of your study, your conclusions, and practical applications that you would recommend to ensure that your program supports the Army outcomes of safety and community cohesion.

A record review of FAP cases has been suggested to help you understand abuse causes and treatment outcomes. We provide three examples from the literature that used a records review methodology. We hope they will stimulate your thoughts about reviewing FAP cases. The articles should be available in your medical library or through interlibrary loan. If you do not have access to a medical library, it is likely that the nearest medical treatment facility library would be willing to help you locate the articles.

Dansak D. A., (1998). Childhood abuse and parental disorder reported by Navy outpatient mental health patients. Military Medicine, 163(8): 510-514. Danask reviewed records in a Navy outpatient mental health clinic to determine the number of patients who had a history of childhood abuse and to explore relationships among abuse history and other family related factors. He reviewed 134 clinical data forms that had been completed by patients and found that 26% had at least one type of childhood abuse. Proportionally, more females reported abuse, and assailants were usually fathers or stepfathers. A conclusion was that child abuse is commonly reported by Navy mental health patients and may affect military adjustment.

Limbos, M. A .P. & Berkowitz, C.D. (1998). Documentation of child physical abuse: How far have we

come? Pediatrics 102(8): 53-58. The authors reviewed cases of children evaluated in the emergency room of a hospital in 1980 and 1995 to determine the effects of increased physician training and a structured clinical form on physician documentation of child physical abuse. They found little improvement in physician documentation despite increased efforts to educate house staff in the evaluation of child abuse. A structured form prompted physicians to document and illustrate physical injuries. It did not improve the documentation of other items.

Briere, J. & Zaidi, L. Y. (1989). Sexual abuse histories and sequelae in female psychiatric emergency room patients. American Journal of Psychiatry, 146(12) 1602-1606. The files of 100 female patients in a psychiatric emergency room were reviewed to locate references to history of sexual molestation: 50 files were selected at random from the emergency room and 50 files had been written by clinicians asked to query abuse history. A substantially higher rate of sexual abuse was found for patients who had been directly asked about molestation than for the random sample. Analysis linked molestation history to suicidality, substance abuse, sexual difficulties, multiple psychiatric diagnoses, and axis II traits or disorders such as borderline personality. Severe abuse and multiple abusers best predicted psychiatric conditions. ■

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Evaluating Family Advocacy Treatment Interventions

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In January 1997, FAP personnel were challenged to: (1) systematically measure the impact of FAP, and (2) document the impact of their work on the Army outcomes. Given the growing demand for fiscal responsibility and impact documentation, there is still much to be done to maximize the effectiveness and efficiency of FAP.

FAP's education and prevention initiatives were closely examined across installations to find ways to maximize their effectiveness, efficiency, and consistency. The examination resulted in positive changes in how prevention services are delivered. A similar evaluation of treatment interventions is about to begin. The purpose of the evaluation is to document the scope of existing treatment and intervention programs, and explore the effectiveness and efficiency of services provided to FAP clients. Dr. Alicia A. Marshall, of Texas A & M University, will conduct the evaluation under the guidance of Ms. Delores Johnson, HQDA, and MEDCOM FAP personnel. The evaluation will be used to guide HQDA and medical command staff in their review of assessment and intervention strategies. The information will also be used to determine appropriate clinical outcome evaluations and the training needs of clinical personnel.

Over the next twelve months, information will be gathered from FAP Social Work Service (SWS) personnel across installations. Objectives of the project are outlined in Table 4.

Table 4.

Objectives of the Treatment Intervention Study

To gather and synthesize information regarding:

- partnerships and collateral relationships
- information sources
- treatment and intervention programs
- training among service providers
- constraints or barriers to effective treatment
- changes in the FAP caseload and Army outcomes

Information will be gathered through surveys, site visits, and telephone interviews conducted by Dr. Marshall and research assistants. A second phase of the evaluation, scheduled to be conducted between May and August 1999, will focus on assessment and evaluation strategies employed in FAP SWS. At that time, the familiarity of SWS personnel with the use of the SPAM and CHAM will be examined. During installation site visits, information will also be gathered regarding the current decision-making practices of non-FAP personnel (MPs, chaplains, medical personnel, etc.) regarding potential FAP cases.

This study is vital to both MEDCOM and HQDA as they continue initiatives to evaluate the effectiveness and impact of FAP. However, the information will only be useful to the extent that accurate

and complete data are obtained. The evaluation is a direct result of requests from FAP personnel to learn more about current practices and program outcomes. Your cooperation, support, and participation in this evaluation ensures its success and the continued growth and effectiveness of FAP. ■

The Statistical Concept of "Confounding"

In our past newsletters, we focused on ways to interpret data from studies in which there is only one variable. Usually, studies of social conditions and health involve the possible effects of many variables. For example, we often discuss several risk factors for abuse. In this newsletter, we introduce the concept of confounding that is central to understanding the effects of several variables on an outcome.

Confounding occurs when the outcome you are studying is affected by a variable other than the one in which you are primarily interested. In other words, you believe that a particular variable (a possible cause) is responsible for the outcome you are studying, but another variable that you had not previously considered (or may not be able to do anything about) is affecting your outcome. This second variable, the confounder, may mask or otherwise obscure the effect of the variable of interest. A confounder is basically defined by two criteria: first, it is associated with the variable you believe is causing the effect, and, second, it is a possible independent cause (risk factor) of the outcome.

Since confounding is a difficult concept to understand, we present a simple illustration of a possible FAP research problem. Suppose you are studying the effect of a program to prevent child abuse and neglect by first time mothers. You first have to decide what the risk factor is that you would like to study. Suppose you believe that it is youthful age. But, there are additional risk factors associated with young motherhood: lower income, a less mature marriage, separation from the family of origin, less adequate housing, or others that may be peculiar to your installation. Also suppose that you have a wide range of ages of first time mothers that are available for your study. You decide that you will attempt to determine whether the younger first time mothers are at greater risk for abusing their children than the older first time mothers. Your study consists of measuring the ages of all first time mothers and determining if age is related to the number of cases of child abuse. You find that younger first time mothers do have more child abuse incidents. Therefore, you conclude that there is an association between mothers' age and child abuse. Your colleague, however, says, "Wait a minute. Some of these older women are the wives of senior NCOs and officers. They have enough money to hire extra help for a few weeks and they could buy more things for their children and probably did not have to worry about paying their bills. How do you know if the important factor in the number of child abuse incidents was not income? Maybe you should study the effect of family income on child abuse and not age."

You go back and look at your data and discover that the older women did have higher incomes. Therefore, it now appears that your study of the effect of mothers' age on child abuse may be confounded by family income. The confounder in your study was another possible risk factor (income) that is associated with age and is an independent predictor of child abuse. This satisfies the two criteria for a confounder as noted above. Now that you suspect that there is confounding, what do you do about it?

Confounding has to exist in the data you are studying. Just because the concept theoretically exists does not mean that it exists in your study. In order to determine if a confounder actually exists in your study, you have to statistically test for it.

You can control for confounding either by the design of your study or during the analysis phase. An example of controlling for confounding during the analysis is by stratification of the independent variable. You would analyze the low income women and high income women separately as if they were in different studies. If you found no statistical difference in their income, you would conclude that confounding was not present. If there were more child abuse incidents by low income women, you would then report that the relationship between age and child abuse depends on the effect of (the confounder) income.

For more information on confounding, see Rothman, K. J. & Greenland, S. (1998). Modern Epidemiology. (2nd ed.). Lippincott – Ravan. ■